

## **2023 Missouri Wild Turkey Brood Survey Results**

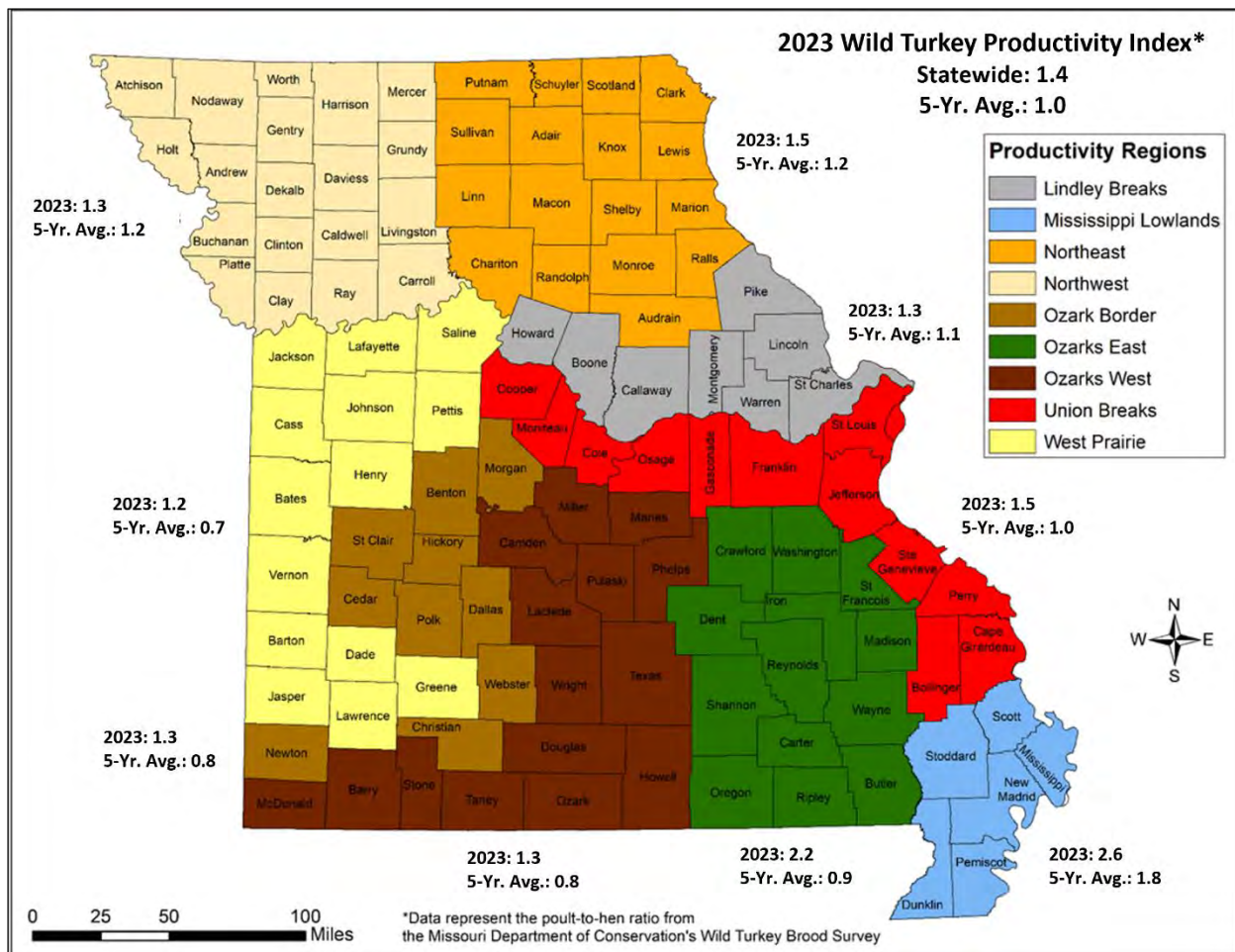
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Missouri Department of Conservation

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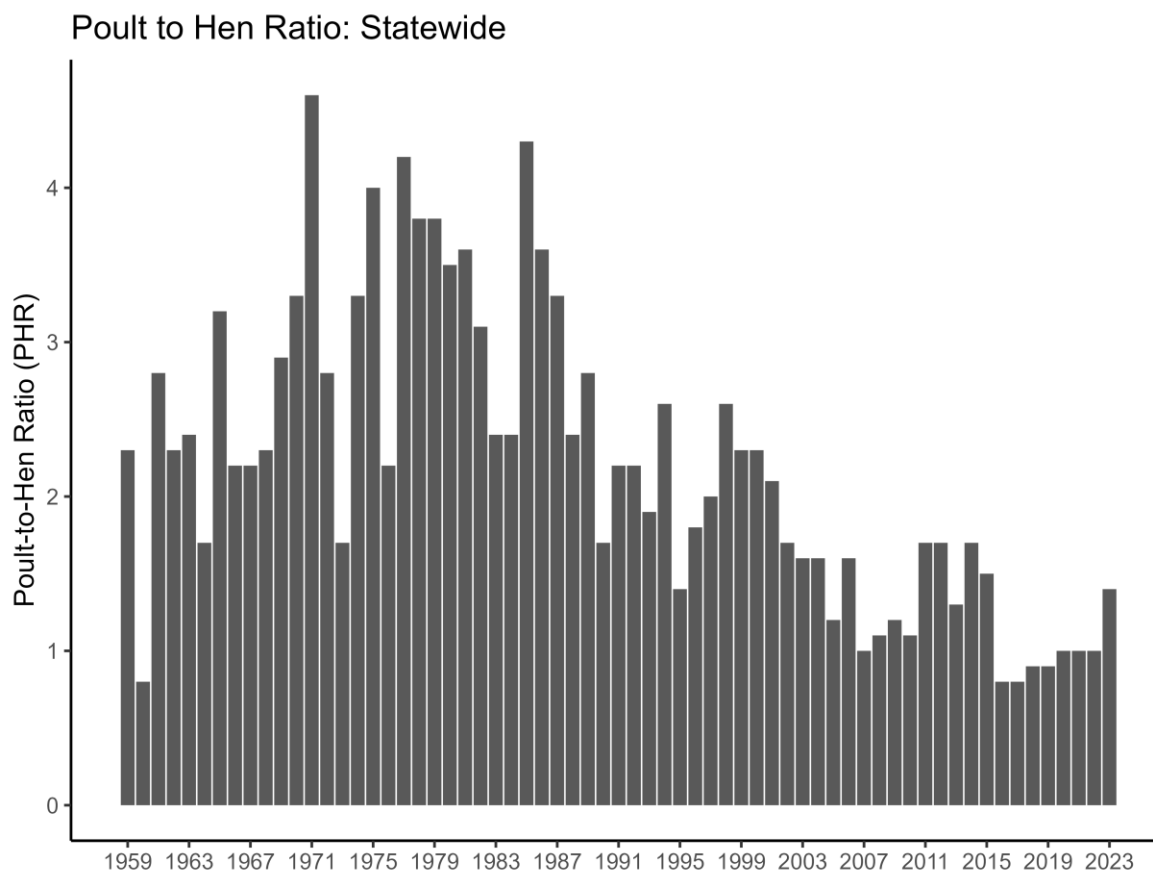
The Missouri Department of Conservation (MDC) has conducted a wild turkey brood survey annually since 1959. During the survey, MDC staff and citizen volunteers record turkey observations during June, July, and August to determine the success of the hatch. Data are collected at the county level and reported statewide and by Turkey Productivity Region, which are counties grouped by similar land cover composition (Figure 1). Each year, hundreds of staff and thousands of citizens participate in the survey, and we are grateful for their contribution. I would also like to thank those staff involved with distributing survey cards and entering the thousands of turkey observations obtained during the survey. The turkey brood survey provides important information for the Conservation Department's Wild Turkey Management Program, and the large dataset we have obtained since the survey was initiated would not have been possible without the dedication of staff and our citizen volunteers.

In 2023, MDC staff and citizen volunteers recorded observations of over 78,000 turkeys during the three-month survey. The 2023 statewide poult-to-hen ratio (PHR) was 1.4, which was 46% greater than the 2022 PHR and 43% greater than the previous five-year average (Figure 1, Figure 2, Table 1). This year's PHR was also 30% greater than the 10-year average and 19% greater than the 20-year average (Table 1). Regional PHRs in 2023 ranged from 1.2 in the West Prairie Region to 2.6 in the Mississippi Lowlands Region (Figure 1, Table 1). Production in 2023 was greater in every region of the state compared to the five-, ten- and 20-year averages; the lone exception being in the Lindely Breaks region, where the 20-year average was slightly higher than the 2023 figure (Table 1).

At the statewide scale, 45% of hens were observed with a brood, which was up from 38% in 2022 (Table 2). The percentage of hens observed with a brood ranged from 40% in the Northwest Region to 74% in the Mississippi Lowlands Region (Table 2). Statewide, the average number of poults per brood was 4.4, which was up from 3.8 in 2022 (Table 2). The average number of poults per brood ranged from 3.9 in the West Prairie Region to 5.0 in the Ozarks East Region (Table 2).



**Figure 1.** Index (poult-to-hen ratio) of Missouri wild turkey production by Turkey Productivity Region. Data were obtained during the Conservation Department's 2023 Wild Turkey Brood Survey and are compared to the previous five-year average.



**Figure 2.** Statewide wild turkey productivity index (poult-to-hen ratio) in Missouri based on observations during the Conservation Department’s Wild Turkey Brood Survey, 1959-2023.

**Table 1.** Index (poult-to-hen ratio) of Missouri turkey production by Turkey Productivity Region (Figure 2). Data were obtained during the 2023 Wild Turkey Brood Survey and are compared to previous years. For each interval value, the percent change indicates how the 2023 index compares to the previous year or the average for periodic intervals.

Productivity Region	<b>2023 Index</b>	1-Year (2022) Change	5-Year (2018-2022) Change	10-Year (2013-2022) Change	20-Year (2003-2022) Change
Lindley Breaks	<b>1.3</b>	10%	15%	5%	-3%
MS Lowlands	<b>2.6</b>	8%	43%	72%	43%
Northeast	<b>1.5</b>	10%	22%	22%	13%
Northwest	<b>1.3</b>	33%	11%	3%	3%
Ozark Border	<b>1.3</b>	45%	64%	31%	19%
Ozarks East	<b>2.2</b>	176%	141%	81%	55%
Ozarks West	<b>1.3</b>	30%	43%	29%	7%
Union Breaks	<b>1.5</b>	43%	48%	34%	14%
West Prairie	<b>1.2</b>	97%	78%	56%	25%
<b>Statewide<sup>a</sup></b>	<b>1.4</b>	<b>46%</b>	<b>43%</b>	<b>30%</b>	<b>19%</b>

<sup>a</sup>Statewide totals include observations where Productivity Region was not recorded on the survey form.

**Table 2.** Wild Turkey Brood Survey data by Turkey Productivity Region (Figure 2). Data were obtained from Missouri’s Wild Turkey Brood Survey conducted in June, July, and August 2023.

<b>Productivity Region</b>	<b>% Hens w/ Brood</b>	<b>Average Brood Size</b>	<b>Poult-to-Hen Ratio</b>	<b>Gobbler-to- Hen Ratio</b>
Lindley Breaks	42%	4.1	1.3	0.5
MS Lowlands	74%	4.8	2.6	1.9
Northeast	43%	4.7	1.5	0.6
Northwest	40%	4.2	1.3	0.7
Ozark Border	43%	4.4	1.3	0.8
Ozarks East	52%	5.0	2.2	0.3
Ozarks West	43%	4.5	1.3	0.6
Union Breaks	47%	4.3	1.5	0.6
West Prairie	46%	3.9	1.2	0.3
<b><sup>a</sup>Statewide</b>	<b>45%</b>	<b>4.4</b>	<b>1.4</b>	<b>0.6</b>

<sup>a</sup>Statewide totals include observations where Productivity Region was not recorded on the survey form.